Shoreline Mitigation Policy Paper

Executive Summary

The Department of Ecology's SMP guidelines as stated in Chapter 173-26 WAC requires mitigation to insure that no net loss of ecological function is achieved during shoreline development.

Seattle's current Shoreline Master Program regulations require mitigation: However, the code is very general regarding what the impacts are that need to be mitigated; and what the appropriate mitigation standards for these impacts should be.

Proposed changes to the existing Shoreline Master Program include:

- Adding new goals and policies, or revisions to existing goals and policies, to better meet the legislative intent and guidelines of the SMA.
- Updating the General Development Standards to include more specific information regarding potential impacts and required mitigation standards to assure no net loss of ecological functions.
- Using the Shoreline Mitigation Plan (SAMP) as a tool to help measure potential impacts from a development and to employ appropriate mitigation measures to achieve no net loss.

The SAMP provides for two approaches to mitigation of shoreline impacts: on-site mitigation and, for water dependent uses only, off-site mitigation. On-site mitigation is mitigation that occurs at the site of a project impact. Off-site mitigation is mitigation that occurs at a site other than the site of project impact (p. 8, SAMP).

Proposed Changes to the SMP

Intent

Seattle's current Shoreline Master Program Regulations require mitigation of impacts caused to shoreline habitat from urban development. However, there is no clear method used to determine the impacts from a proposed development and as a result no clear mitigation requirements. This ambiguity lends itself to permit delays and the potential to under mitigate the impacts from shoreline develop. Additionally, since the last update of Seattle's SMP the knowledge regarding the types of impacts that urban develop causes to Puget Sound and other water bodies has greatly increased. Low Impact Development (LID) methods have proven to be a good way to mitigate impacts of increased impervious surface. A reduction in overwater coverage is also seen as a way to protect the shoreline environment and the associated ecological processes. We know that shallow water habitat

is important to certain salmon species and therefore the impacts from dredging and shoreline armoring is better understood.

Therefore the proposed changes to Seattle's current SMP regulations are intended to provide clarity to the types and quantity of mitigation that will be required for impacts to the shoreline habitat and ecological function.

The Shoreline Alternative Mitigation Plan (SAMP) is one way that DPD can add clarity to the mitigation requirements of the SMP. SAMP is a program that was developed using a model that can be used to measure impacts from a proposed project and then determine the appropriate mitigation for the proposed impacts. DPD proposes to use SAMP as a model that will be used for the rest of the city to measure impacts from projects and determine the appropriate information. Information about SAMP can be found at: http://www.seattle.gov/DPD/Planning/Shoreline_Alternative_Mitigation_Plan/Overview/

As described below, proposed changes to the existing SMP will include new goals, policies and development standards. In addition, DPD is proposing to use the impact and mitigation methods described in the Shoreline Alternative Mitigation Plan (SAMP) to measure impacts and determine the appropriate mitigation standards.

Changes to Comprehensive Plan Goals

Highlighted sections are the changes/additions to the current shoreline goals.

LUG48 Provide standards to achieve no net loss of ecological function when development occurs in the shoreline environment through the development of methods to measure impacts and mitigation so that all shoreline impacts are mitigated. (SAMP is intended to achieve this goal.)

LUG49 Preserve, protect and restore areas such as those necessary for the support of wild and aquatic life or those identified as having geological or biological significance.

LUG50 Preserve and protect environmental systems, including wild and aquatic life when planning for future shoreline uses.

LUG51 Support continuing scientific study of Seattle shoreline ecosystems. Scientific study should focus on contribution to the knowledge regarding the appropriate mitigation methods that should be used to offset the impacts from development.

Changes to Comprehensive Plan Policies

LU246 Protect the natural environment through use and development standards governing shoreline activities including best management practices and mitigation requirements. The methods developed for the Shoreline Alternative Mitigation Plan (SAMP) or a similar method should guide mitigation requirements

LU247 Areas identified as special wildlife or fisheries habitat should be developed only if no reasonable alternative locations exist and then only if the project is designed to minimize and mitigate habitat damage.

LU253 Support the study of the shoreline systems that will provide a continuously updated baseline against which to judge the impact of any action.

Changes to Land Use Code

General Development Standards

Note: DPD is proposing to add the following standards to the current general development standards of the SMP found in SMC 23.60.152: These additional general development standards are intended to add specific information regarding impacts and mitigation to the more common impacts caused by shoreline development.

A. Any increases in surface runoff from development shall be kept to a minimum, and surface water run off shall be controlled, treated and released so that receiving water quality and any shore properties and features are not adversely affected. Control measures may include, but are not limited to, dikes, catch basins or settling ponds, interceptor drains and planted buffers. Allowable means to achieve this include bioswales, catch basin filters, and other methods prescribed in Title 22, Subtitle VIII, the Stormwater, Grading and Drainage Control Code.

B. Pavement shall be kept to a minimum and permeable surfacing, where practicable, shall be used to keep surface water accumulation and runoff to a minimum. Recommended methods are found in Title 22, Subtitle VIII, Stormwater, Grading and Drainage Control Code. Permeable surfaces include, but are not limited to, porous asphalt, concrete, brick, or pavers; or plastic confinement systems with grass or gravel filler.

C. Best management practices shall be employed for the safe handling of fuels and toxic or hazardous materials to prevent them from entering the water. Direct runoff of these materials is prohibited. Best management practices shall be employed for prompt and effective clean-up of any spills that do occur. A spill prevention and response plan may be required by the Director.

D. Any cleaning or resurfacing operation including the application of paint, preservative treatment and other chemical compounds occurring over water that may result in the entry of debris (such as paint chips) or toxins (such as paint) into the water shall employ tarpaulins securely affixed above the water line to prevent material from entering the water. Prior to removing the tarpaulins, the accumulated contents shall be removed by vacuuming or an equivalent method that prevents material from entering the water.

E. Wooden components that will be in contact with standing water or floodwaters shall not contain polycyclic aromatic hydrocarbons (PAH), creosote,

pentachlorophenol, or similar toxic substances. Durable, non-toxic components are the preferred material for in-water and over-water structures. Where treated wood is considered necessary, it shall be applied and used in accordance with the American Wood Preserver Association (AWPA) standards for aquatic use.

F. For projects involving concrete, a concrete truck chute cleanout area shall be established to contain wet concrete. No concrete or clean out shall be allowed to enter the water body. This does not prohibit piers or other concrete structures authorized by a valid permit.

G. All inlets and catch basins shall be protected from fresh concrete, paving, paint stripping and other high-risk pollution generating activities during construction.

H. Construction staging areas shall be as far from the ordinary high water mark as practicable.

I. If at any time project-related activities cause a fish kill to occur, the permittee shall stop all work relating to the fish kill and immediately notify the Department of Planning and Development, Washington Department of Fish and Wildlife, and the Washington Department of Ecology.

J. In- and over-water structures shall be designed and located to keep impacts from shading of any bank and shallow water habitat to a minimum.

Shoreline Alternative Mitigation Plan (SAMP)
Note: DPD is currently considering adding the SAMP by reference to the SMP to better measure impacts and determine the appropriate mitigation for the affected shoreline properties identified in the SAMP.

New development projects within the SAMP boundaries remain subject to the review procedures of the SMP (see goals, policies and standards above) and the City's SEPA policies. However, within the boundaries of the SAMP, the City will base its project review and evaluation of project impacts and appropriate mitigation based on the SAMP Habitat Equivalency Table (see p. 8, SAMP).

Information about SAMP can be found at:
http://www.seattle.gov/DPD/Planning/Shoreline_Alternative_Mitigation_Plan/Overview/

Background Information

Note: As discussed above, staff review of the current regulations of the SMP determined that the existing regulations do not provide enough specificity to meet the intent and direction of the new SMA guidelines to achieve no net loss. The existing regulations and the new state guidelines are included here as a reference for your review and consideration of the proposed changes.

Existing Regulations

SMC 23.60.030 Criteria for substantial development permits
B. Conditions may be attached to the approval of a permit as necessary to assure consistency of the proposed development with the Seattle Shoreline Master Program and the Shoreline Management Act.

SMC 23.60.064 Procedures for obtaining substantial development permits, shoreline variance permits, shoreline conditional use permits and special use authorizations.
E. In addition to other requirements provided in this chapter, the Director may attach to the permit or authorization any conditions necessary to carry out the spirit and purpose of and assure compliance with this chapter and RCW 90.58.020. Such conditions may include changes in the location, design, and operating characteristics of the development or use. Performance bonds not to exceed a term of five years may be required to ensure compliance with the conditions.

SMC 23.60.152 General development.
H. All shoreline developments and uses shall be located, designed, constructed and managed to avoid disturbance, minimize adverse impacts and protect fish and wildlife habitat conservation areas including, but not limited to, spawning, nesting, rearing and habitat areas, commercial and recreational shellfish areas, kelp and eel grass beds, and migratory routes. Where avoidance of adverse impacts is not practicable, project mitigation measures relating the type, quantity and extent of mitigation to the protection of species and habitat functions may be approved by the Director in consultation with state resource management agencies and federally recognized tribes.

I. All shoreline developments and uses shall be located, designed, constructed and managed to minimize interference with or adverse impacts to beneficial natural shoreline processes such as water circulation, littoral drift, sand movement, erosion and accretion.

J. All shoreline developments and uses shall be located, designed, constructed and managed in a manner that minimizes adverse impacts to surrounding land and water uses and is compatible with the affected area.

State Guidelines

WAC 173-26-186 Governing Principles of the Guidelines

(8) Through numerous references to and emphasis on the maintenance, protection, restoration, and preservation of "fragile" shoreline "natural resources," "public health," "the land and its vegetation and wildlife," "the waters and their aquatic life," "ecology," and "environment," the Act makes protection of the shoreline environment an essential statewide policy goal consistent with the other policy goals of the Act. It is recognized that shoreline ecological functions may be impaired not only by shoreline development subject to the substantial development permit requirement of the Act but also by past actions, unregulated activities, and development that is exempt from the Act's permit requirements. The principle regarding protecting shoreline ecological systems is accomplished by these guidelines in several ways, and in the context of related principles. These include:
(a) Local government is guided in its review and amendment of local master programs so that it uses a process that identifies, inventories, and ensures meaningful understanding of current and potential ecological functions provided by affected shorelines.
(b) Local master programs shall include policies and regulations designed to achieve no net loss of those ecological functions.
(i) Local master programs shall include regulations and mitigation standards ensuring that each permitted development will not cause a net loss of ecological functions of the shoreline; local government shall design and implement such regulations and mitigation standards in a manner consistent with all relevant constitutional and other legal limitations on the regulation of private property.
(ii) Local master programs shall include regulations ensuring that exempt development in the aggregate will not cause a net loss of ecological functions of the shoreline.

WAC 173-26-191 Master program contents

173-26-191 2(a)(ii) (D) Design and implement regulations and mitigation standards in a manner consistent with all relevant constitutional and other legal limitations on the regulation of private property.

WAC 173-26-201 Comprehensive process to prepare or amend shoreline master programs

173-26-201 (2) (c) Protection of ecological functions of the shorelines

This chapter implements the Act’s policy on protection of shoreline natural resources through protection and restoration of ecological functions necessary to sustain these natural resources. The concept of ecological functions recognizes that any ecological system is composed of a wide variety of interacting physical, chemical and biological components, that are interdependent in varying degrees and scales, and that produce the landscape and habitats as they exists at any time. Ecological functions are the work performed or role played individually or collectively within ecosystems by these components.

As established in WAC 173-26-186(8) these guidelines are designed to assure, at minimum, no net loss of ecological functions necessary to sustain shoreline natural

resources and to plan for restoration of ecological functions where they have been impaired. Managing shorelines for protection of their natural resources depends on sustaining the functions provided by:

- Ecosystem-wide processes such as those associated with the flow and movement of water, sediment and organic materials; the presence and movement of fish and wildlife and the maintenance of water quality.

- Individual components and localized processes such as those associated with shoreline vegetation, soils, water movement through the soil and across the land surface and the composition and configuration of the beds and banks of water bodies.

The loss or degradation of the functions associated with ecosystem-wide processes, individual components and localized processes can significantly impact shoreline natural resources and may also adversely impact human health and safety. Shoreline master programs shall address ecological functions associated with applicable ecosystem-wide processes, individual components and localized processes identified in the ecological systems analysis described in WAC 173-26-201(3)(d)(i).

Nearly all shoreline areas, even substantially developed or degraded areas, retain important ecological functions. For example, an intensely developed harbor area may also serve as a fish migration corridor and feeding area critical to species survival. Also, ecosystems are interconnected. For example, the life cycle of anadromous fish depends upon the viability of freshwater, marine, and terrestrial shoreline ecosystems, and many wildlife species associated with the shoreline depend on the health of both terrestrial and aquatic environments. Therefore, the policies for protecting and restoring ecological functions generally apply to all shoreline areas, not just those that remain relatively unaltered.

Master programs shall contain policies and regulations that assure at minimum, no net loss of ecological functions necessary to sustain shoreline natural resources. To achieve this standard while accommodating appropriate and necessary shoreline uses and development, master programs should establish and apply:

- Environment designations with appropriate use and development standards, and

- Provisions to address the impacts of specific common shoreline uses, development activities and modification actions, and

- Provisions for the protection of critical areas within the shoreline, and

- Provisions for mitigation measures and methods to address unanticipated impacts.

When based on the inventory and analysis requirements and completed consistent with the specific provisions of these guidelines, the master program should ensure that development will be protective of ecological functions necessary to sustain existing shoreline natural resources and meet the standard. The concept of "net" as used herein, recognizes that any development has potential or actual, short term or long term impacts and that through application of appropriate development standards and employment of mitigation measures in accordance with the mitigation sequence, those impacts will be addressed in a manner necessary to assure that the end result will not diminish the shoreline resources and values as they currently exist. Where uses or development that impact ecological functions are necessary to achieve other objectives of RCW 90.58.020, master program provisions shall, to the greatest extent feasible, protect existing ecological functions and avoid new impacts to habitat and ecological functions before implementing other measures designed to achieve no net loss of ecological functions.

173-26-201 (2) (e) Environmental impact mitigation

(i) To assure no net loss of shoreline ecological functions, master programs shall include provisions that require proposed individual uses and developments to analyze environmental impacts of the proposal and include measures to mitigate environmental impacts not otherwise avoided or mitigated by compliance with the master program and other applicable regulations. To the extent Washington's State Environmental Policy Act of 1971 (SEPA), chapter 43.21C RCW, is applicable, the analysis of such environmental impacts shall be conducted consistent with the rules implementing SEPA, which also address environmental impact mitigation in WAC 197-11-660 and define mitigation in WAC 197-11-768. Master programs shall indicate that, where required, mitigation measures shall be applied in the following sequence of steps listed in order of priority, with (a) of this subsection being top priority.

(A) Avoiding the impact altogether by not taking a certain action or parts of an action;

(B) Minimizing impacts by limiting the degree or magnitude of the action and its implementation by using appropriate technology or by taking affirmative steps to avoid or reduce impacts;

(C) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;

(D) Reducing or eliminating the impact over time by preservation and maintenance operations;

(E) Compensating for the impact by replacing, enhancing, or providing substitute resources or environments; and

(F) Monitoring the impact and the compensation projects and taking appropriate corrective measures.

(ii) In determining appropriate mitigation measures applicable to shoreline development, lower priority measures shall be applied only where higher priority measures are determined to be infeasible or inapplicable.

Consistent with the WAC 173-26-186 (5) and (8), master programs shall also provide direction with regard to mitigation for the impact of the development so that:

A) Application of the mitigation sequence achieves no net loss of ecological functions for each new development and does not result in required mitigation in excess of that necessary to assure that development will result in no net loss of shoreline ecological

functions and not have a significant adverse impact on other shoreline functions fostered by the policy of the act.
(B) When compensatory measures are appropriate pursuant to the mitigation priority sequence above, preferential consideration shall be given to measures that replace the impacted functions directly and in the immediate vicinity of the impact. However, alternative compensatory mitigation within the watershed that address limiting factors or identified critical needs for shoreline resource conservation based on watershed or comprehensive resource management plans applicable to the area of impact may be authorized. Authorization of compensatory mitigation measures may require appropriate safeguards, terms or conditions as necessary to ensure no net loss of ecological functions.

173-26-201 (2) (f) Environmental impact mitigation
For development projects that may have un-anticipatable or uncommon impacts that cannot be reasonably identified at the time of master program development, the master program policies and regulations should use the permitting or conditional use permitting processes to ensure that all impacts are addressed and that there is no net loss of ecological function of the shoreline after mitigation.